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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,291	12/23/2004	Jong-Pil Chung	SHN-0037	9156

23413 7590 08/07/2007  
CANTOR COLBURN, LLP  
55 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002

EXAMINER
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PATEL, NATASHA

ART UNIT	PAPER NUMBER
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3766

MAIL DATE	DELIVERY MODE
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08/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/519,291

Applicant(s)

CHUNG ET AL.

Examiner

Natasha N. Patel

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed 6/11/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-17 is/are allowed.
- 6) ☒ Claim(s) 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The amendment filed June 11, 2007 has been received and considered. By this amendment, Claims 1-2 have been cancelled, Claims 3 and 15-17 have been amended, and Claims 18-19 have been added. Thus, Claims 3-19 are pending in the application.

#### ***Claim Rejections - 35 USC § 101***

2. In view of the Applicant's restatement of the relationship between the connecting line and the auricle of vagus nerves of the ear, the Examiner is withdrawing the rejection of Claim 3 that was made in the last Office Action.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meadows et al. (US Patent 6,553,263).

5. Regarding Claim 18, Meadows discloses an electric stimulator comprising: a battery (see battery 180') for supplying an electric power to the electric stimulator; a voltage regulating unit (see output regulator in AIC 190'; Figure 4) for transforming a voltage outputted from the battery to a constant voltage corresponding to one required for the electric stimulator;

Art Unit: 3766

a microprocessor (see processor DIE 160') receiving the electric power from the voltage regulating unit for initializing and controlling the electric stimulator;

an oscillator for generating a predetermined range of frequency according to control of the microprocessor (see Figure 5 and col. 15, lines 49-51); The examiner considers there has to be some component that allows the frequency to be varied/adjusted.

a connector (see connector 192') connected through a connecting line to a contacting terminal adapted to contact an auricle of vagus nerves of an ear, for outputting the frequency from the oscillator.

Meadows discloses a 0.2 to 1.6 Volt range. Meadows does not disclose that the connector voltage varies from 1mV to 100mV. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a voltage between 1mV and 100mV because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges for a specific application involves only routine skill in the art (*In re Aller*, 105 USPQ 233). In other words, it would have been obvious for someone to use a lower voltage on the auricle of the ear than the voltage that Meadows uses on the spinal cord since those are two different areas of the body with their own specific stimulation needs.

6. Regarding Claim 19, Meadows discloses the pulse rate preferably spans 0-1000 Hz, which includes the range of 7-14 Hz. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a frequency between 7-14 Hz because it has been held that where the general conditions of a claim are disclosed

Art Unit: 3766

in the prior art, discovering the optimum workable ranges for a specific application involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tomecek (US Patent 4,112,923)

9. Regarding Claim 18, Tomecek discloses an electric stimulator comprising:  
a battery (see battery; Figure 11) for supplying an electric power to the electric stimulator;

a voltage regulating unit (see power supply 156) for transforming a voltage outputted from the battery to a constant voltage corresponding to one required for the electric stimulator; The examiner takes Official Notice that voltage regulators are well known in the field of stimulator circuitry. A voltage regulator is needed to provide a steady, consistent voltage and prevent voltage fluctuations from interfering with the device's operation.

a microprocessor (see logic 162) receiving the electric power from the voltage regulating unit for initializing and controlling the electric stimulator;

Art Unit: 3766

an oscillator (see osc.; Figure 11) for generating a predetermined range of frequency according to control of the microprocessor; and

a connector (see probe 22) connected through a connecting line to a contacting terminal adapted to contact an auricle of vagus nerves of an ear (see Figure 3, col. 7, line 50-52 and col. 8, line 43-44), for outputting the frequency from the oscillator and the voltage outputted from the connector is a voltage selected from a range of 1mV to 100mV. The examiner considers that since the voltage knobs are adjustable, the oscillator will inherently be capable of selecting a range of 1mV to 100mV.

10. Regarding Claim 19, Tomecek discloses a frequency adjuster (see control knob 58), but does not disclose a 7-14 Hz frequency range specifically. However the examiner considers that since the frequency knobs are adjustable, the control knob is capable of allowing the stimulator to stimulate between 7-14 Hz.

#### ***Allowable Subject Matter***

11. Claims 3-17 are allowed.

#### ***Conclusion***

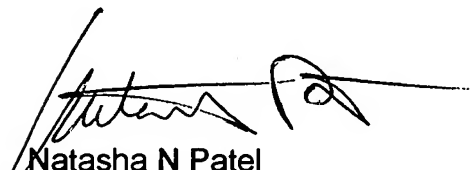
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (US Patent 5,514,175)

Skovajsa (US Patent 4,232,678)

Art Unit: 3766

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natasha N. Patel whose telephone number is 571-272-5818. The examiner can normally be reached on M-F 8:30-5:00.
14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Natasha N Patel  
Patent Examiner  
Art Unit 3766

/Kennedy J. Schaetzle/  
Primary Examiner, AU 3766  
July 24, 2007